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DECEMBER 1949

CHRONICLE OF THE WORLD HEALTH ORGANIZATION

ACTIVE MEASURES AGAINST PLAGUE
WHO EASTERN MEDITERRANEAN REGIONAL COMMITTEE
INTERNATIONAL PHARMACOPOEIA
CENTRES FOR STREPTOMYCIN THERAPY
CO-ORDINATION OF INTERNATIONAL CONGRESSES OF MEDICAL SCIENCES
RICKETTSIOSES IN EQUATORIAL AFRICA
PENICILLIN TREATMENT OF SYPHILIS
NEW SUBSTITUTES FOR MORPHINE
CRIME AND THE TREATMENT OF OFFENDERS
HEALTH ACHIEVEMENTS IN THE ARGENTINE

WORLD HEALTH ORGANIZATION
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GENEVA

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Note. — The *Chronicle of the World Health Organization* is published monthly in English, French, Russian, Spanish and Chinese. The *Chronicle* reports the activities of the Organization, without, however, claiming to be an authoritative record of its official views, which are set out in the *Official Records of the World Health Organization*. All correspondence relating to it should be addressed to the World Health Organization, Palais des Nations, Geneva. Those who may wish to reproduce the text of the *Chronicle* or extracts therefrom, more especially in the medical Press, are entirely at liberty to do so.

VOL. 3, No. 12 DECEMBER 1949

CHRONICLE OF THE WORLD HEALTH ORGANIZATION

ACTIVE MEASURES AGAINST PLAGUE

In the present state of knowledge, it is not possible to envisage the immediate worldwide elimination of plague, since that would require eradication of infection in wild rodents over vast areas ; however, thanks to new rodenticides and insecticides, as well as to drugs and prophylactic agents such as streptomycin and the sulfonamides, it is possible to suppress and eventually to eradicate plague from limited endemic foci where its reservoirs are domestic rodents. In this way, not only will epidemics be prevented, but such continued effort will gradually eliminate infection from the human communities. Thus, the Second World Health Assembly decided that, during 1950, teams should be sent to demonstrate present techniques in plague control in regions chosen for this purpose.[1]

During its first session, held at Geneva from 19 to 24 September 1949,[2] the Expert Committee on Plague, which has taken over the work of the Joint OIHP/WHO Study-Group on Plague,[3] examined the question—which should constitute the first stage of any campaign—of the delimitation of endemic areas. The committee then considered the various aspects of a

[1] *Chron. World Hlth Org.* 1949, 3, 195

[2] The following took part in this session :

Members :

Dr G. Blanc, Directeur de l'Institut Pasteur du Maroc, Casablanca, Morocco (*Vice-Chairman*)
Dr A. Castro, Director, National Plague Service, Ministry of Education and Health, Rio de Janeiro, Brazil
D. H. S. Davis, Head, Plague Control Service, Union Health Department, Johannesburg, Union of South Africa
Dr P. C. C. Garnham, Reader in Medical Parasitology, London School of Hygiene and Tropical Medicine, London, United Kingdom (*Rapporteur*)
Dr K. F. Meyer, Director, Hooper Foundation, University of California Medical School, San Francisco, USA
Major-General Sir Sahib Singh Sokhey, Director, Haffkine Institute, Bombay, India (*Chairman*)

WHO Expert :

Dr A. Macchiavello, Planning Officer, WHO Regional Office for the Eastern Mediterranean, Alexandria, Egypt

Secretary :

Dr P. M. Kaul, Medical Officer, Section of Epidemiological Studies, WHO

[3] *Off. Rec. World Hlth Org.* 11, 12 ; 19, 18 ; *Chron. World Hlth Org.* 1948, 2, 144, 252

plague field programme. It recommended the formation of a single but strengthened field-team of plague experts of high scientific standing to initiate the eradication programme during 1950. Other matters considered were measures for the protection of ports and the disinfestation of merchandise, particularly rice, and plague therapeutics. Finally, an important document on the nomenclature of animal reservoirs and vectors was considered.

Endemic Areas

Delimitation of the endemic areas. The preliminary investigations which local authorities should carry out, particularly in regions where the demonstration team is to operate, have the object of determining the conditions which, in a given territory, maintain or encourage endemic plague. These studies should deal with the geographical distribution of human plague, the morbidity and mortality which it causes, and its monthly and annual incidence in geographical districts, as well as with the geographical distribution of rodent plague and of the animal reservoirs (actual or potential), and other vectors in the endemic, enzootic, and plague-free areas. Investigations of this kind have already been made in certain territories, while in others they are in course of preparation. In this connexion the committee noted two reports ; the first, submitted by M. Sharif, late Assistant Director, Haffkine Institute, Bombay, summarizes surveys carried out, over a period of 16 years, in Bombay Province, on the distribution and development of plague. In the second of these reports, Dr P. C. C. Garnham, Reader in Medical Parisitology, London School of Hygiene and Tropical Medicine, submitted to the committee proposals directed towards a survey of plague among wild rodents in tropical Africa.

Plague in the centre and south of Bombay Province. The investigations made between 1940 and 1943 have shown that, contrary to observations made in some parts of Asia and in certain regions of the USA, it is the domestic rat, and not wild rodents, which is responsible for plague in the centre and south of Bombay Province. During the summer, the infection remains latent and the enzootic is slowly transmitted from one burrow to another. On the other hand, during the rainy season, the rats seek shelter in houses and are thus brought more into contact with man ; furthermore, the humidity and the fall in temperature encourage the fleas to breed.

There are two types of enzootic plague in this province. In the tablelands with a hot climate, the infection is intense but short-lived, resulting in a high mortality among the rodents. However, in areas with a cooler climate, i.e., the watersheds of the Western Ghats in the districts of Darwhar, Belgaum, Satara and Poona, the infection spreads slowly and persists for a long time, causing only a low mortality among the rodents. By

FIG. 1. EXPERT COMMITTEE ON PLAGUE, FIRST SESSION

Left to right, standing : Dr A. Castro, Dr K. F. Meyer, Dr A. Macchiavello (WHO), Dr C. Klimt (WHO), Dr Y. M. Biraud (WHO) ; sitting: Dr P. C. C. Garnham, Dr P. M. Kaul (WHO), Major-General Sir Sahib Singh Sokhey (Chairman), Dr G. Blanc, D. H. S. Davis

determining the places infected with plague between 1930 and 1945 in southern and central districts of Bombay Province, it was shown that plague radiates from endemic centres situated in the Western Ghats and in the State of Hyderabad. Plague spreads to neighbouring villages from these centres, where trade is carried on in cereals, raw cotton, and cotton seed, which are products especially favoured by rats. In the centres themselves, there are no serious epidemics, because the rats have been immunized by previous infections, but the infection lingers on among a few susceptible animals. When the infection reaches villages where there are rats which are comparatively more susceptible, however, it takes an enzootic form and gives rise to cases of human plague. The districts of North Kanara, Ratnagiri and Colaba, situated among the eastern foothills of the Western Ghats, suffer less from plague, since there is little commercial traffic there and the humidity is exceedingly high. The distribution of foci of endemic plague throughout India is today fairly well known.

Wild-rodent plague in tropical Africa. In the report which he presented to the committee, Dr Garnham emphasized that plague represents a perennial danger in the tropical regions of Africa and constitutes one of the principal problems of the health administrations. Locating and delimiting the endemic areas is the first step in organizing any campaign against plague.

The characteristics of wild-rodent plague in south Africa are well enough known, and the situation in north Africa was carefully examined in 1935,

when the findings were negative. Only fragmentary information is available for tropical Africa, however, and research should now be directed toward that part of the continent. The investigation should deal particularly with the following questions :

1. Does wild-rodent plague exist in the areas in which human plague has been observed ?

2. Is there any relation between wild-rodent plague and domestic-rodent plague ?

3. What is the relationship between fleas and their animal hosts ?

4. How is enzootic plague transmitted from one place to another ?

The solution of each of these problems requires the collaboration of a zoologist-mammalogist, an entomologist, an epidemiologist, and a bacteriologist ; upon the latter would devolve the fundamental task of differentiating the real plague bacilli from those which have been described as such in rodents. Southern Tunisia, the region of Lake Albert, Uganda, Senegal, and the northern regions of the South African enzootic zone would be suitable areas for these investigations.

The committee felt that, before putting such a programme into operation or choosing the areas in which it might be carried out, it would be necessary to obtain exact information regarding the incidence of plague in these various regions. It therefore proposed sending a questionnaire on this subject to the health administrations of the areas concerned.

Control of Plague

Demonstration team. In accordance with the principles generally adopted for WHO demonstration teams, the international team for plague control would, as emphasized by the committee, work in close collaboration with local groups, which would subsequently undertake to carry on the work alone. Because of the fact that plague epidemics appear at irregular intervals and break out sometimes after five or six years' remission, the work would have to be carried on under close supervision for several years. The formation of a single team consisting of experts of the highest standing will provide this supervision, for, though it will be moving from one area to another, the team, or one or more members of it, will be paying periodical visits to the work initiated in the different regions.

The work of the team in suppressing infection is, however, not sufficient by itself. The committee therefore clearly indicated that, parallel with this work, it would be necessary to improve the living conditions of the people, to provide better domestic sanitation, and to make every possible effort to break up the contact between man and rat.

The team would consist of an epidemiologist, a bacteriologist, an entomologist, a zoologist-mammalogist, and a sanitary engineer. In the first instance field operations will be begun in a selected area in Bombay Province, and it is probable that further operations will be undertaken in one or several of the following regions proposed by the committee : one of the islands off the coast of Africa—the Azores or Madagascar—Morocco, the Belgian Congo, and China.

Elimination of reservoirs and vectors in seaports and airports. The committee endorsed the recommendations contained in the last report of the study-group [4] as the most satisfactory measures for the protection of towns, seaports, and airports by means of the new rodenticides and insecticides.

After formulating some new recommendations, concerning particularly the deratization of ships, the committee discussed the question of the disinfestation of rice, with reference to a report on the different procedures commonly used and their respective merits, presented by Dr R. Pollitzer, epidemiologist at the WHO Regional Organization for South-East Asia, New Delhi.

Disinfestation of rice. It is necessary to resort to chemical substances for the disinfestation of rice since neither exposure to the sun nor treatment in hot-air chambers is sufficient to destroy possible parasites. Fumigation with liquid hydrocyanic acid has been used successfully at the port of Colombo. This method, however, is too dangerous to be extended to the infested foci in the interior of the country. Cyanogas (calcium cyanide) has been used in Uganda, the Union of South Africa, and Bechuanaland, and its efficacy has been confirmed by investigations carried out under the auspices of the Indian Research Fund Association. This substance, in the form of a fine powder, can be sprayed over the rice while the latter is being poured into the storage-bins, or, in a coarser form, it can be added to the grain and allowed to remain in contact with it in a hermetically sealed container for 24 hours. The second method is suitable only for small quantities of rice or for unhusked rice, since the deposit of lime left after treatment with calcium cyanide is eliminated by the sifting used during decortication.

Methyl bromide has been used successfully in treating rice infested with fleas, but it is dangerous because it is toxic and odourless. Methallyl chloride is less dangerous because of its odour, which makes all work impossible in a place containing a lethal concentration of this gas ; however, certain experiments have shown that it is less active than methyl bromide. Acrylon (a mixture of equal parts of acrylonitrile and carbon tetrachloride) has been suggested as a successor to methyl bromide ; it is used in the USA to disinfest decorticated rice. It will be necessary to prove the effectiveness of this material in destroying the rat fleas under field conditions.

[4] *Off. Rec. World Hlth Org.* **19**, 19 ; *Chron. World Hlth Org.* 1948, **2**, 253

The committee recommended trying out these methods and extending them to other cereals and to all materials capable of spreading infections, such as cottonseed, jute sacks, hides, and pelts. Upon learning that the Food and Agriculture Organization (FAO) had likewise proposed a study of methods of disinfestation of edible cereals with a view to avoiding losses in storage and transport, the committee expressed a desire for close collaboration with this organization with regard to the investigation of these methods.

Treatment of pneumonic plague. Streptomycin seems to be the best therapeutic agent known at the present time. A dose of 15 g. can prevent the development of pneumonic plague in a man of average size. The committee emphasized that certain districts of South Africa and China, where the disease is prevalent, would be suitable fields for conducting research on the efficacy of antibiotics against pneumonic plague.

Prophylactic treatment. The joint study-group had recommended treatment by streptomycin and the sulfonamides of persons who had been in contact with pneumonic plague; it had also proposed that a study should be made in order to judge whether this treatment would make it possible to shorten the observation period imposed on these persons. The prophylactic dosage of which the efficacy was acknowledged by the committee is : 3 g. of sulfadiazine or of sulfamerazine daily, administered either for five days or during the period of exposure to infection, and, in the latter case, for five days at least after the subject has been exposed to infection for the last time.

The committee also recommended undertaking trials of chemoprophylaxis on persons exposed to bubonic plague infection during an epidemic. Streptomycin is unsuitable for prophylactic usage because it is eliminated from the body too rapidly and because repeated administration presents difficulties.

Nomenclature of animal reservoirs and plague vectors. At the request of the Joint OIHP/WHO Study-Group on Plague, Dr A. Macchiavello, a member of the study-group and now official in charge of planning at the WHO Eastern Mediterranean Regional Office at Alexandria, prepared a list of the genera and species of rodents and ectoparasites in the different parts of the world. This list gives, for each species of rodent, the taxonomy of the animal, the bibliographical reference to the original description, the place of origin of the animal, the date of the first cases of plague attributed to the species, the place where the infected animal was found, the circumstances of this discovery, and, finally, the fleas found on the species. The same particulars are given for all species of fleas which are plague vectors. This important document, which will be examined in its final form by the committee during its next session, will probably be published in the *Bulletin of the World Health Organization.*

WHO EASTERN MEDITERRANEAN REGIONAL COMMITTEE

Second Session

At the first WHO Eastern Mediterranean Regional Conference, held in Cairo from 7 to 10 February 1949,[1] delegates from the Anglo-Egyptian Sudan, Egypt, Ethiopia, France, Iran, Iraq, Lebanon, Pakistan, Saudi Arabia, Syria, Turkey, and the United Kingdom met to discuss the health problems of this region and to lay the foundation for a regional organization. The work of this conference resulted in the establishment of the Eastern Mediterranean Regional Committee, composed of delegates from the States represented, and in the creation of an executive body, the Eastern Mediterranean Regional Office, which came into operation on 1 July 1949 at Alexandria, under the direction of Sir Aly Shousha, Pasha. These decisions were approved by the Executive Board of WHO at its third session.[2]

The WHO Eastern Mediterranean Regional Committee met for the second time, at Geneva, from 12 to 15 October 1949. To the delegates from the above-mentioned countries were added representatives from Israel, a State admitted to membership of WHO during the Second World Health Assembly.[3] In the absence of the chairman, Dr Scander Pasha (Egypt), the discussions were presided over, alternately, by the vice-chairmen, Mr Bahar (Pakistan) and Dr Karabuda (Turkey).

The Regional Director presented to the conference a report of activities, in which the following points were given special attention by the delegates : the integration of the Sanitary Bureau at Alexandria with the regional organization ; the granting of 31 fellowships to doctors in the Eastern Mediterranean Region ; the campaign against malaria begun in Pakistan under the direction of a WHO demonstration team ;[4] investigations on tuberculosis undertaken in ten countries of the Region by a WHO expert consultant ;[5] and mass radiography organized by WHO in Egypt.[6]

After adopting the report of the Regional Director, the different delegates described the health problems of their respective countries and the means so far used in attempting a solution. The aim of the programme then evolved by the conference was to co-ordinate and to reinforce these means of action, by the application of the recommendations made by the Second World Health Assembly as well as by efficient functioning of the national health-administrations.

The regional committee therefore recommended that the countries concerned should allocate larger sums for carrying out public-health programmes and that they should provide for the application of definite

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[1] *Chron. World Hlth Org.* 1949, **3**, 48
[2] *Chron. World Hlth Org.* 1949, **3**, 76
[3] *Chron. World Hlth Org.* 1949, **3**, 209
[4] *Chron. World Hlth Org.* 1949, **3**, 136
[5] *Chron. World Hlth Org.* 1949, **3**, 132
[6] *Chron. World Hlth Org.* 1949, **3**, 133

measures, wherever they were not yet in force, such as compulsory vaccination against smallpox or the creation of special organizations for maternal and child health. The task of the governments will be facilitated by expert consultants, attached to the regional office, in matters relating to public-health administration, sanitation, nursing and health education.

It appears, from various statements made by the delegates, that, of all the diseases which are prevalent in the Region, malaria is the most widespread ; in a country such as Iraq, with a population of 4,800,000,

FIG. 2. WHO EASTERN MEDITERRANEAN REGIONAL COMMITTEE, SECOND SESSION — I

Left to right (seated at table) : H. Bahar, Dr N. Karabuda (Co-Chairmen) ; Sir Aly Tewfik Shousha, Pasha (Regional Director) ; Dr W. P. Forrest (WHO) ; Dr Martha M. Eliot (Assistant Director-General, WHO)

it causes 50,000 deaths annually. The other diseases which present the most urgent health problems are cholera, which is rampant in Pakistan in an endemic state, tuberculosis, schistosomiasis, typhoid fever, dysentery, and trachoma. In spite of the efforts of national public-health administrations, most of which have had only a few years' experience, the health of the population is still jeopardized by economic and social factors, such as undernourishment, poverty, ignorance of the rules of hygiene, and lack of qualified nursing personnel.

Under these circumstances, it is important that WHO should continue, and increase if possible, the assistance which it can give to the Eastern

Mediterranean countries. The requests of the governments involved, which were adopted in the form of resolutions by the conference, are especially concerned with the granting of fellowships, advice from public-health experts in medical and administrative matters, the supply of propaganda material for the health education of the people, and the organization of campaigns against bejel, tuberculosis, cholera, trachoma, etc. The conference strongly recommended action on certain specific projects, such as the creation, with the aid of WHO, of a chair of malariology at

FIG. 3. WHO EASTERN MEDITERRANEAN REGIONAL COMMITTEE, SECOND SESSION — II

Left to right (seated at table): Lieutenant-Colonel M. Jafar (Pakistan) ; Professor G. G. Mer (Israel) ; Dr A. Naficy (Iran) ; Médecin-Colonel J. Helfft (France) ; Dr M. Nazif Bey (Egypt)

the Malaria Institute of Pakistan and the establishment, under the aegis of FAO and WHO, of a nutrition training-centre in Egypt.

The entire Region feels a pressing need for medical assistance of all types. However, certain countries which have achieved progress in specific matters have offered, through their representatives, to share the results of their experience with less fortunate States. In particular, Egypt proposed putting its Health Propaganda Section at the disposal of the regional office, while Israel made a similar offer with regard to its Antimalaria Research Station and medical statistics services. These proposals, as well as the unanimous decision to promote an exchange of health personnel

among the various countries of the Region, express the spirit of collaboration and mutual aid which prevailed throughout the discussions.

After giving serious consideration to the solution of general and persistent problems common to all, or to the majority, of the Eastern Mediterranean countries, the regional committee took special note of the poor health conditions of the Palestine refugees and approved the measures taken by WHO, in collaboration with the United Nations, in an attempt to effect a remedy.[7] While recommending that the assistance given until now be continued, the delegates of all the countries represented were of the opinion that only final resettlement of these refugees would solve the problems, regarding health and other matters, which are presented by their present situation.

The third session of the Eastern Mediterranean Regional Committee will be held at Ankara in September 1950.

DELEGATES AND OBSERVERS PRESENT AT THE CONFERENCE

Anglo-Egyptian Sudan	Dr H. M. Elliott, Dr I. Anis
Egypt	Dr M. Nazif Bey, Dr M. S. El Far
Ethiopia	A. G. Zallaka, Dr F. B. Hylander
France	Médecin-Colonel J. Helfft
Iran	Dr A. Naficy, Dr A. T. Mehra
Iraq	Professor H. Al Witry
Israel	Professor G. G. Mer, Dr M. Kahany, Dr A. Malchi
Lebanon	Dr E. Khoury
Pakistan	H. Bahar, Dr M. Akbani, Lieutenant-Colonel M. Jafar
Saudi Arabia	Dr R. Pharaon, Dr M. Khashokji
Syria	M. O. Djabri
Turkey	Dr N. Karabuda
United Kingdom	Dr M. Aziz Bey, Dr R. H. Barrett, Dr C. A. Bozman, Dr E. Cochrane
FAO	Dr M. A. Abbasy
ILO	Dr A. Grut
United Nations	Mr J. Keen

The delegates of France and the United Kingdom represented those territories for the conduct of whose international relations they are responsible.

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[7] *Chron. World Hlth Org.* 1949, 3, 67, 136, 206

FORTHCOMING PUBLICATION OF THE INTERNATIONAL PHARMACOPOEIA

The first proofs of the International Pharmacopoeia (*Pharmacopoea Internationalis*) were in the hands of the Expert Committee on the Unification of Pharmacopoeias during its fifth session, held in Geneva from 26 September to 5 October 1949.[1] This meeting marked the last stage before publication of the first edition of this work, planned for the beginning of 1950.

The monographs, general notices and appendices were completed and put in their final form. The structural formulae of the substances which will be included in the Pharmacopoeia were drawn up according to the Patterson system, published in 1940, with the collaboration of Capell, in a book entitled *The ring index. Ring systems used in organic chemistry.* In this work Patterson has tried to establish a system for numbering and naming cyclic compounds, by means of which some order could be brought into the nomenclature of organic compounds, which at present varies from country to country. The chemical names of the substances in the Pharmacopoeia—both in English and in French—were chosen to conform with the list of radicals published by the International Union of Chemistry.

During the examination of the monographs on antitoxic sera and on certain vegetable drugs, the question was considered whether the method of biological assay should be included for all these substances. In many countries there are regulations stipulating the tests with which such substances should comply and defining the methods by which the tests should be carried out. It might therefore appear unnecessary to describe methods of biological assay in the International Pharmacopoeia. The committee's discussions revealed, however, that several countries have no official method of assay for the substances in question, and showed that the International Pharmacopoeia, by publishing some standard methods, could provide useful information for the authorities wishing to lay down regulations, as well as for pharmacists and doctors. Thus, the methods at present

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[1] The following were present at this session :

Members :

H. Baggesgaard-Rasmussen, Ph.D., Professor of Pharmaceutical Chemistry, Danish School of Pharmacy, Copenhagen, Denmark ; Member of the Danish Pharmacopoeia Commission

Professor E. Fullerton Cook, Pharm.D., Chairman, Committee of Revision of the Pharmacopoeia of the United States of America, Philadelphia, Pa., USA

I. R. Fahmy, Ph.D., Professor of Pharmacognosy, Fouad I University, Cairo, Egypt ; Secretary, Egyptian Pharmacopoeia Commission

H. Flück, Dr.Sc.Nat., Professeur de Pharmacognosie à l'Ecole Polytechnique Fédérale, Zürich, Switzerland ; Membre de la Commission fédérale de la Pharmacopée

Dr C. H. Hampshire, Secretary, British Pharmacopoeia Commission, General Medical Council Office, London, United Kingdom (*Chairman*)

Dr R. Hazard, Professeur de Pharmacologie et de Matière médicale à la Faculté de Médecine de l'Université de Paris, France ; Membre de la Commission de la Pharmacopée française

D. van Os, Dr.Sc.Nat., Professor of Pharmaceutical Chemistry and Toxicology, University of Groningen, Netherlands ; Chairman, Netherlands Pharmacopoeia Commission

Secretary :

P. Blanc, Section of Therapeutic Substances, WHO

considered most satisfactory will be included in the International Pharmacopoeia. The choice of these methods was made in agreement with the Expert Committee on Biological Standardization. It need hardly be said that these methods, as well as chemical or physical methods of assay, may be modified in subsequent editions of the Pharmacopoeia, if such modification is made necessary by the results of fresh research.

The monographs dealing with diphtheria toxoid, which is used either for the Schick test or for prophylactic purposes, and for which no international standards as yet exist, were deferred for publication in a supplement or in a future edition of the Pharmacopoeia.

The table of usual and maximal doses of drugs figuring in the International Pharmacopoeia will include only doses for adults. The dosage for children will be published later. It has been stressed that such a list, founded on experience acquired in paediatrics, would be of interest, since it is found in this form in only a few national pharmacopoeias.

Inclusion of monographs on new drugs. Some of the synthetic antimalarial drugs of proved efficacy, such as mepacrine, pamaquine and pentaquine, will be included in the first edition of the Pharmacopoeia, on the recommendation of the Expert Committee on Malaria. Monographs dealing with several synthetic substitutes for morphine, indicated by the Expert Committee on Habit-Forming Drugs, will be published later. The following products in particular are involved : amidone, dihydrocodeinone bitartrate (registered name : Dicodide), dihydro-oxycodeinone hydrochloride (registered name : Eucodal), and metopon.

Non-proprietary names for drugs. During its preceding session the committee had contemplated establishing international non-proprietary names for important new drugs placed on the international market. This proposal has aroused lively interest. The need for resolving the present confusion has been expressed in various quarters and even by certain governments, and the International Pharmaceutical Federation had already made a preliminary study of the question. As previously pointed out,[2] this is a problem which raises difficulties of a legal nature, and for which no immediate solution can be expected. It is therefore important to consult the International Union for the Protection of Industrial Property, as well as governments, and, further, to obtain the support of the national pharmacopoeial commissions and the co-operation of the manufacturers of pharmaceutical products. Only after having received the views of these various bodies will the committee be able to submit to the Executive Board specific proposals for establishing a system of non-proprietary names.

List of synonyms. The inclusion of synonyms in the International Pharmacopoeia is not contemplated, except in very special cases ; further-

[2] *Chron. World Hlth Org.* 1949, **3**, 238

more, neither registered names nor the non-proprietary names used in different countries for the same drug will be given. In view of the growing difficulties—encountered on all sides and pointed out, in particular, by the WHO expert committees—caused by the multiplicity of names for the same drug, the committee decided, on the recommendation of the Expert Committee on Mental Health, to prepare a list of the principal synonyms (non-proprietary names and registered names) for drugs appearing in the International Pharmacopoeia as well as for other important drugs on the international market. It is intended to publish this list, during 1950, as a supplement to the *Bulletin of the World Health Organization.*

CENTRES FOR STREPTOMYCIN THERAPY IN CENTRAL AND EASTERN EUROPE

The visits paid by Dr H. Wissler, of Davos-platz (Switzerland), WHO expert consultant, to centres for streptomycin therapy in Central and Eastern Europe have been very instructive. The first results of the treatment of tuberculous meningitis and miliary tuberculosis among children in Czechoslovakia, Poland, and Yugoslavia with streptomycin sent by the United Nations International Children's Emergency Fund (UNICEF) are now known, and it is possible to draw conclusions of general interest from them.

According to the arrangements made between UNICEF and the governments concerned, each of the countries receiving supplies of streptomycin —supplies of the order of 5 kg. monthly—were to provide for the hospitalization in one or more centres of about fifty children suffering from forms of tuberculosis capable of being treated with streptomycin. In the majority of cases, either tuberculous meningitis or miliary tuberculosis was involved. However, in certain areas various forms of primary tuberculosis have also been treated with this antibiotic. This was particularly the case in Czechoslovakia and in Poland, where it has been possible to extend treatment to a larger number and a greater variety of cases because of large purchases of streptomycin by the governments of these two countries.

Dosage and methods of treatment are of primary importance in streptomycin therapy. The possible appearance of resistant strains of tubercle bacilli can jeopardize successful treatment ; this danger makes it essential to take every precaution to avoid such a development. Consequently, it was agreed that treatment would be given in the centres according to directions from the Subcommittee on Streptomycin (of the Expert Committee on Tuberculosis of the World Health Organization) and that the results should be recorded as uniformly as possible for submission to the

subcommittee in a form which would make comparison easy. WHO agreed to grant facilities to countries for the training of a specialized staff in Paris or London, or in any other city where streptomycin therapy is practised under exceptionally favourable conditions. What are the conclusions to be drawn from the observations made in the treatment centres ? In his report Dr Wissler gives some of the facts revealed by a comparison of results and by exchanges of view with the physicians giving treatment.

Tuberculous meningitis. In certain instances the percentage of cures was lower than that which might be expected, and streptomycin treatment was unable to prevent the fatal outcome of the disease. These setbacks were frequently due to diagnosis being made too late. In fact, children often arrived at treatment centres in a state too advanced for any treatment to have much chance of success. The dearth of doctors may be a partial explanation of this : in one of these countries there are only 6,000 for 20,000,000 inhabitants ; in another, 4,000 for 15,000,000 inhabitants. As stressed by Dr Wissler, however, it is also indispensable that the medical personnel be better informed on methods and facilities for treating tuberculous meningitis and the absolute necessity of sending children to the special centres as soon as the disease makes its appearance.

It has been found everywhere that tuberculous meningitis necessitates a longer treatment than was anticipated. Eight to nine months' hospitalization appears necessary for convalescence ; relapses have been frequent among children sent home too soon. The ideal solution, which would prevent convalescents from occupying hospital beds needed for other patients, would consist of setting up convalescent homes in connexion with the clinical services.

Experience has also proved that, to be fully effective, streptomycin treatment should be carried out—and the patients followed up—by a highly qualified personnel : physicians, nurses, and laboratory technicians. In the majority of the centres, which are directed by very competent physicians, the non-medical staff is insufficient to attain the quality of treatment achieved in Western Europe and to fulfil the conditions laid down by the expert subcommittee. It is certainly no exaggeration to say that, for successful results, the antibiotic treatment of certain diseases, particularly tuberculous meningitis, should be carried out by a staff specially trained for this work.

The laboratory tests also leave room for improvement. Tests in the cerebrospinal fluid (cell counts and determination of the sugar-level) are being generally and quite efficiently performed. On the other hand, estimation of the protein-level leaves much to be desired, and bacteriological diagnosis is often not carried out. Further, there should be at least one centre in each country where the sensitivity and resistance to streptomycin of strains of tubercle bacilli, isolated before, during, and after treatment, could be accurately determined.

In one of the centres, unfortunate complications followed the intrathecal injection of dihydrostreptomycin. It is therefore desirable that streptomycin be supplied not only in this form, but also in preparations which are more suitable for intrathecal injection.

Miliary tuberculosis. The difficulties encountered in the treatment of tuberculous meningitis have not arisen in the treatment of miliary tuberculosis. The initial results of the treatment of this form of the disease have been generally good. Nevertheless, it is advisable to await further results before drawing any conclusions. Various cases of bone metastasis which appeared after the apparent cure of the pulmonary lesions point to the need for prudence in the prognosis of the treatment.

In concluding his report, Dr Wissler suggests that, in the future, governments receiving supplies of streptomycin should be authorized to use this antibiotic in the treatment of forms of tuberculosis other than those at present treated with it, such as tuberculous sinuses and pulmonary tuberculosis of the reinfection type. He emphasizes that countries should be encouraged to develop and improve their services for antibiotic therapy and to train staff qualified to give this type of treatment, which will probably become more and more general. Films for radiography should also be supplied to countries in which this material is lacking, and standard forms for case-reporting should be sent to all centres so that the results may be easily compared. Finally, it is essential that treatment centres be conversant with work at present being carried out in other parts of the world and that medical literature be regularly sent to them.

CO-ORDINATION OF INTERNATIONAL CONGRESSES OF MEDICAL SCIENCES [1]

The Executive Committee of the Council for the Co-ordination of International Congresses of Medical Sciences met in Paris from 6 to 7 October 1949.

A budget of $75,000 was approved in principle, the sources of income being WHO ($44,000), UNESCO ($25,000), and, tentatively, the member organizations ($6,000). The cost of the secretariat is not to exceed one-third of the budget. The remaining two-thirds are for expenditures relating to services to congresses :

Technical activities (including advanced courses)	$24,000
Symposia	$6,000
Publications	$10,000
Travel grants (this to be covered by the UNESCO subsidy)	$10,000

[1] See *Chron. World Hlth Org.* 1949, 3, 106

The committee decided that the ceiling for the annual subscription of each member organization should be 12,500 Belgian francs ($250) per year and that, in addition, each should pay 3% of the fees received at each congress. Organizations which have no clearly defined membership are to pay 6% of the fees received at each of their congresses in lieu of the annual subscription. This applies also to congresses which have no permanent organization between their meetings.

Requests for funds for congresses to be held in 1949/1950 were examined, and eight were recommended to WHO for consideration ; other matters concerning financial assistance to congresses were discussed. Candidates are being considered for the post of Executive Secretary, and an appointment is to be made on 1 January 1950. It was decided that a quarterly bulletin, the contents of which will be limited to the Council's work and to the problem of co-ordination of congresses, will be published.

Symposia on selected subjects are to be organized, starting as early as possible in 1950. The first two subjects will be " Geographical Pathology " and " Diseases of Muscles ". It was agreed that the organization of symposia should be the responsibility of the member groups concerned, the Council serving to assist rather than to undertake such organization directly.

The committee decided to prepare a memorandum concerning its interest in further collaboration with, and support from, UNESCO. Professor R. Debré was appointed rapporteur.

The next meeting will be held 6-7 January 1950 in Paris.

RICKETTSIOSES IN EQUATORIAL AFRICA

" Congolese Red Fever "

It is well known that, at the present time, the problem of the nomenclature of rickettsioses occurring in different parts of the world still presents many difficulties. Dr M. Gaud, Directeur de l'Office International d'Hygiène Publique, has endeavoured to define this question, especially with regard to the classification of rickettsioses occurring in equatorial Africa. The complexity of the problem of identifying " Congolese red fever " within the group of rickettsioses is clearly apparent from his well-documented article, published in the latest issue of the *Bulletin of the World Health Organization*.[1] This disease, initially differentiated from the group of " climatic fevers ", has certain analogies with dengue. It is relatively benign, occurs in an endemic form in Central Africa, particularly among

[1] *Bull. World Hlth Org.* 1949, 2, 257

Europeans, and is characterized essentially by fever and a rubella-like exanthema. According to Lefrou, the disease can be differentiated clinically from dengue. On the other hand, Belgian investigators have felt that " Congolese red fever " is related to classical and murine typhus, both of which have been observed in the Belgian Congo. According to French authors, however, " Congolese red fever " is a well-defined morbid entity and is transmitted by the dog-tick, *Rhipicephalus sanguineus*. In their opinion it would be preferable to call the disease " tick-borne Congolese typhus ", if subsequent studies confirm the data already acquired.

All the investigations carried out in Africa, taken together, show that the term " Congolese red fever " does not designate a specific disease, but covers various complaints which it is desirable to differentiate from one another and to relate to their causal agent. Consequently, Dr Gaud concludes that the name " Congolese red fever " leads to confusion and should no longer be used.

Thus the situation in Central Africa is still confused as regards the classification of the human rickettsioses. The uniform pattern throughout the African continent, as far as the human rickettsioses are concerned, is indicated clearly by the proved existence in Central Africa of classical typhus, murine typhus and tick-borne typhus, which have already been studied in North and South Africa.

It must be concluded from Dr Gaud's article that further research will be necessary, not only to identify " Congolese red fever " conclusively, but also to demarcate the place occupied by the Central African rickettsioses among the exanthematic fevers of the American and Asiatic groups.

PENICILLIN TREATMENT OF SYPHILIS

At a time when vast campaigns against venereal disease are being conducted in several regions of Europe, it is more important than ever to have precise therapeutic data available and to be able to choose from the large number of methods of treating syphilis those which are the most effective and economical. In Poland, the public authorities, with the technical aid of WHO,[1] have been carrying on a large-scale anti-venereal-disease campaign for nearly two years. Similar campaigns have been undertaken in Bulgaria, Czechoslovakia, Hungary, Italy, and Yugoslavia.[2]

Dr E. W. Thomas, Professor of Clinical Medicine, New York University College of Medicine, and Director, Rapid Treatment Center, Bellevue Hospital, New York, visited the countries mentioned above several times

[1] *Chron. World Hlth Org.* 1949, 3, 29
[2] *Chron. World Hlth Org.* 1949, 3, 133

during 1949. On these occasions he contacted the authorities responsible for the anti-venereal-disease campaigns ; furthermore, during a series of lectures, he was able to bring to the attention of venereologists in the countries visited the most recent data obtained in the USA. As director of one of the most important treatment centres in the USA, and thanks to his close contacts with the most eminent syphilologists of that country, Dr Thomas is particularly well qualified to discuss the present state of modern antisyphilitic therapy. His conclusions are based not only on personal research, but also on the results obtained in other clinics. In addition, the US Central Statistical Unit has been able to analyse all the data and to supply information which is as accurate as possible. In a recent issue of the *Bulletin of the World Health Organization*, the essential facts set forth by Dr Thomas in his lectures may be found in the form of two articles.[3]

The first article is entitled : " Rapid treatment of syphilis with penicillin : A survey of the problem ". In it Dr Thomas first describes the different penicillin preparations used. The most recent, procaine penicillin G in oil with 2% aluminium monostearate, makes it possible, thanks to its slow absorption rate, not only to reduce the doses hitherto used in the treatment of syphilis, but also to space them, which is of great advantage in actual practice. In fact, it is still possible to detect the presence of penicillin in the blood four days after the injection of a dose of 300,000 units of this preparation.

The author discusses several schedules for the penicillin treatment of syphilis and shows that the statistics are, in general, favourable : another worker has reported a failure-rate of only 2.6%, whereas the corresponding figure given by the Central Statistical Unit is 15% to 20%. Penicillin therapy has a further advantage over the classical method, using arsenicals and bismuth, in that the patient is not tempted to give up treatment. It would be premature to draw final conclusions concerning treatment with procaine penicillin G in oil and 2% aluminium monostearate. Nevertheless, the results already obtained are encouraging. Unfortunately, it is difficult to form an exact idea of the results since patients cannot always be regularly followed up and, in cases of relapse, a large number of reinfections must be allowed for. The author underlines the importance of quantitative serological tests, both in the blood and in the cerebrospinal fluid, which make it possible both to follow the development of the disease and to detect relapses.

With regard to the treatment of late syphilis, Dr Thomas stresses the long period of time which must be allowed for the reversal of serological reactions. This is the case, for example, in the treatment of latent syphilis.

Syphilologists and neurologists agree that the penicillin treatment of neurosyphilis surpasses the results obtained with malariotherapy. The

[3] *Bull. World Hlth Org.* 1949, **2**, 233, 249

results of this treatment should be interpreted on the basis of an examination of the cerebrospinal fluid and not on the basis of the development of nerve lesions, which are frequently irreversible.

In his second article, devoted to " Penicillin in prenatal and infantile syphilis ", Dr Thomas stresses the effectiveness of penicillin therapy in this field also. In the USA, penicillin has satisfied better than any other known antisyphilitic agent the desired conditions : non-toxicity, cure of maternal syphilis, prevention of transplacental infection, cure of syphilis of the foetus in utero after the sixteenth week of pregnancy, and, finally, adequate treatment in a short time. Less than 3% of the women treated with penicillin gave birth to babies suffering from congenital syphilis. The author stresses the importance of additional treatment during the eighth month of pregnancy for women treated during the first four months. He advises the use of procaine penicillin G in oil with 2% aluminium monostearate. He also emphasizes that retreatment should be prescribed for women who have been treated for syphilis before pregnancy.

In the absence of clear clinical symptoms, it is advisable to carry out regular estimations of the level of reagin in the blood before undertaking the treatment of congenital syphilis. It is possible that a positive reaction may be due merely to the transplacental passage of reagin ; in this case, the concentration of the reagin will gradually decrease. It is therefore possible to wait for three months before prescribing specific treatment for a baby who does not show any clinical symptoms of congenital syphilis even though its blood reaction is positive.

NEW SUBSTITUTES FOR MORPHINE

The Pethidine and Methadone Derivatives

As a result of the chemical synthesis of substitutes possessing the analgesic properties of morphine, substances have appeared on the market which are often—like the product they are intended to replace—of a habit-forming nature. The Expert Committee on Habit-forming Drugs of the World Health Organization has the task of examining these new synthetic products and of deciding which of them should be subject to international control. In an article in the *Bulletin of the World Health Organization*,[1] entitled " On pethidine and methadone derivatives " Dr P. O. Wolff has reviewed different substances belonging to the pethidine and methadone groups.

First of all the author stresses that international conventions relating to habit-forming drugs, while providing for an administrative control

[1] *Bull. World Hlth Org.* 1949, 2, 193

which constitutes an important means of preventing addiction, in no sense involve a prohibition of the therapeutic use of these substances and do not seek to hamper research in this field. Experiments which may last several years are necessary for a correct assessment of the therapeutic properties and the addictive or non-addictive nature of a substance. A drug of this kind, which may at first seem to be of value by reason of its therapeutic properties, may also be found later to be extremely dangerous because of its addictive character. This was the case with heroin. A more recent example is furnished by pethidine which, while being an advance on the usual opiates because of its combined analgesic and antispasmodic action, has the drawback of causing addiction. The case of pethidine is made all the more serious by the fact that its original manufacturers emphasized its harmlessness, although it had already been submitted to the usual control for habit-forming drugs.

Consequently, it might seem preferable to modify the principle so far adopted and to submit compounds, where caution is advisable, to control from the moment they appear until it has been proved that they do not represent a danger to public health. However, the problem is made more complicated by the fact that the synthetic substances put on the market in this way represent only a few of the compounds in a series which, in theory, may include an unlimited number. For this reason it would seem necessary to extend control measures to cover all possible derivatives of a parent substance, i.e., all the drugs in a given group, until their non-addictive character has been adequately proved. Nevertheless, it is desirable that research on and trials of new derivatives should be continued, since this may lead to the discovery of a powerful analgesic without addictive properties.

Dr Wolff surveys in turn the most important derivatives of pethidine (the ethyl ester of 1-methyl-4-phenyl-piperidine-4-carboxylic acid)—also known as dolantin, demerol, etc.—and of methadone (6-dimethylamino-4,4-diphenyl-3-heptanone)—also known as amidone, miadone, butalgin, etc.—and refers to their pharmacological properties in relation to their chemical structure.

The properties of the various derivatives of pethidine vary according to whether they have been obtained by substitution in the phenyl nucleus, by variations in the N-group or by changes of the relative position of it, and also according to their stereochemical configuration and optical activity. In the case of pethidine, as with morphine, the breaking of the piperidine nucleus leads to the almost complete disappearance of analgesic properties. Furthermore, the *cis* or *trans* configuration has a considerable influence on the pharmacological properties of certain compounds.

Initial work on the methadone series shows that certain compounds have a very high analgesic effect ; in addition, there are great possibilities of manufacturing numerous derivatives of it. The addictive property

of methadone itself is due to the presence of *l*-methadone. It seems likely that compounds of this series will become very tempting to drug addicts.

After considering many pharmacological effects of different methadone derivatives, the author observes that it is relatively easy to carry out the synthesis of methadone and its derivatives, and to manufacture them without any elaborate chemical plant. Illegal production is, therefore, possible and must be taken into account. For all these reasons, it seems legitimate to submit all compounds of the methadone series, as well as the pethidine derivatives, to control.

CRIME AND THE TREATMENT OF OFFENDERS

Medical Aspects

Social psychology is now seeking to bring into the field of medicine, and to consider in the light of scientific knowledge, those anomalies of behaviour which, in an acute stage, can lead to crime ; it is also tending to regard delinquents as misfits in social life, capable of being rehabilitated by medical treatment or by socio-medical action.

How far can this scientific conception of crime be accepted ? What are the causes of crime ? What are the means of preventing it ? What treatment should be given to offenders ? These are the questions considered by Dr M. S. Guttmacher, Chief Medical Officer, Medical Service of the Supreme Bench of Baltimore, Md., USA, in a report prepared for WHO for presentation to the Social Commission of the United Nations. This report has now been published in the *Bulletin of the World Health Organization* under the title " Medical aspects of the causes and prevention of crime and of the treatment of offenders ".[1]

Looking at the various aspects of the problem from the biological standpoint, the author refers to the view held by geneticists that a criminal tendency is not hereditary. Studies on crime in identical twins have not produced any conclusive results. Moreover, theories attributing the origin of criminality to congenital syphilis or functional disorders of the pituitary or thyroid glands are no longer acceptable. Nevertheless, mental instability and physical inferiority are often found among criminals. Finally, there is a group of chronic delinquents, who are psychopaths, with deep-rooted character disorders. Although generally well endowed intellectually, they

[1] *Bull. World Hlth Org.* 1949, 2, 279

suffer from a total lack of moral conscience, probably congenital, which may be considered as an actual structural deficiency. Their criminal activity is caused by subconscious forces which they are unable to control.

Despite these indications, the role of biological factors has not been clearly enough delineated for the problem of the prevention of crime to be approached usefully from the eugenic angle. On the other hand, the influence of the economic and social environment has been widely acknowledged, and it is along these lines that measures to prevent crime should be directed. Dr Guttmacher treats this aspect of the matter at length, taking as a basis numerous enquiries, studies and analyses, all of which show that many abnormalities of character date back to childhood conflicts or are caused by maladjustment to family or social life. It is the duty of the family, from earliest childhood and later during school years, to keep watch over the child's psychological development and his integration into the life of the community. The modern school system should therefore have at its disposal child-guidance clinics.

There are two aspects to the treatment of offenders : the first is concerned with the application of general medical measures to improve the physical health of the criminal and to make his rehabilitation easier. Even surgical treatment, such as prefrontal lobotomy or castration, the latter for sexual offences, has been advocated ; these methods, however, though suitable in isolated cases, might become socially dangerous if generally applied. The other type of treatment is psychiatric. A prison atmosphere is hardly suitable for individual psychotherapy, but group psychiatric treatment has given encouraging results. Under the collective pressure of a group of fellow-prisoners, certain criminals who resist individual therapy recognize the truth of certain principles.

In conclusion, the author believes that it is impossible as yet to foresee what can be accomplished by psychiatry, a relatively new branch of medicine, towards solving the problem of crime. According to him it is essential that research should be carried on within the framework of the universities, in conjunction with institutes and centres for criminal psychiatry. Only by the co-ordinated work of sociologists, economists, anthropologists, psychologists, lawyers and psychiatrists, can a rational system for the prevention and treatment of crime be established.

HEALTH ACHIEVEMENTS IN THE ARGENTINE

Since 1948 the Argentine Government has taken important steps towards the implementation of the recommendations formulated by the First World Health Assembly.[1] In a short report sent to WHO, Mr A. J. Balino, Director-General of the National Ministry of Public Health, states that, in accordance with the order of priority suggested by the Assembly for the programme to be carried out during the period 1948-50, the Ministry is intensifying measures against tuberculosis, venereal diseases, and malaria, and is actively engaged in all questions concerning maternal and child welfare.

Among the work undertaken in the field of tuberculosis, not only should the construction of, and plans for, new treatment centres be mentioned, but also legislation on compulsory vaccination for anergic persons, and a programme for rehabilitation of tuberculous convalescents.

A large-scale anti-venereal-disease programme has been drawn up, which, under the motto " to educate is to protect ", aims primarily at informing the public about problems relating to these diseases. An important place in the programme has been given to practical activities, such as the notification and registration of cases of venereal disease, the investigation of sources of infection, the supply of drugs, and the serological census of large communities. Furthermore, social-hygiene centres will be organized in many localities.

In 1947 and 1948, antimalarial campaigns were carried out, using insecticides ; 70% of the inhabitants of the endemic areas were protected in this way, thanks to modern methods and, particularly, to the use of DDT. This programme will be extended in 1949 to cover the whole population of such areas.

Finally, with regard to maternal and child health, centres are now in existence throughout the country ; these centres include home-nursing services, dispensaries, and social services, and certain of them also provide facilities for hospitalization. In 1948, 50 similar centres were created in places where there was most need for them. It was suggested that a hospital for infants, with facilities for the training of medical personnel, should be established at Buenos Aires ; this plan has now been put into operation. Courses in obstetrics, gynaecology, and paediatrics have been given to doctors. It has been possible to make demographic studies of maternal and child mortality, the birth-rate, the normal growth of the population, etc. New centres for maternal and child health will be set up during the current year ; at a large number of them, hospitalization will be possible. It is proposed to establish 500 institutions of this nature in the course of the next few years.

[1] *Chron. World Hlth Org.* 1948, **2**, 173

Notes and News

New Tuberculosis Laboratories in Greece

Dr W. H. Tytler, a WHO consultant on tuberculosis, left Geneva on 7 November 1949 for Greece, where he will aid in setting up three bacteriological laboratories for the diagnosis of tuberculosis. These laboratories will enable the Greek Government to intensify its campaign against tuberculosis. Through the joint efforts of the United Nations International Children's Emergency Fund (UNICEF), the Scandinavian Red Cross Societies, and WHO, several hundreds of thousands of children and young adults have been examined, and thousands of children have been vaccinated with BCG. X-ray examinations have been made of 300,000 people and are being continued along lines set forth by WHO.

Dr Tytler, a Canadian by birth, occupied the chair of Professor of Tuberculosis at the University of Wales from 1938 to 1949 and contributed much to the modernization of laboratory methods for the diagnosis of tuberculosis in Wales. Greece is only the first step in Dr Tytler's present mission. He expects to visit other European countries, and in 1950 he will probably go to India to act as consultant on modern laboratory techniques relating to tuberculosis.

" Iron Lungs " for India

On 25 August 1949, Dr C. Mani, Director of the WHO Regional Office for South-East Asia, cabled headquarters in Geneva that there was an outbreak of poliomyelitis in Bombay and other parts of India and that the government requested emergency assistance in the form of 20 light portable respirators, to be sent as quickly as possible. Authorization for procuring the respirators and despatching them by air to India was immediately cabled from Geneva to the Pan American Sanitary Bureau (PASB), which is acting as the WHO Regional Office for the Americas. Within two days, PASB telegraphed to India details concerning " iron lungs " which could be obtained at short notice despite the fact that the United States was experiencing its own epidemic. As soon as final instructions and specifications were received from India, five respirators were sent by air and reached India on Sunday, 4 September. Fifteen additional respirators of a different type were subsequently shipped by ocean freight.

Because of the urgent need for these respirators, WHO advanced money for procuring and transporting them (cost : approximately $1,000 each, plus insurance, transportation, etc.), subject to reimbursement by the Indian Government. The Indian Ministry of Health was able to arrange for reimbursement from funds allocated by the United Nations Children's Emergency Fund (UNICEF) for their 1949 projects in India.

This emergency recalls the suggestion made to the First World Health Assembly by the Belgian Delegation that WHO explore the possibilities of setting up a system of international loan of respirators to countries suffering from epidemics. The Organization has been, and still is, engaged in conducting an investigation of the clinical indications for respirators and means by which they could be made available to countries needing them.[1]

Penicillin Production and Consumption

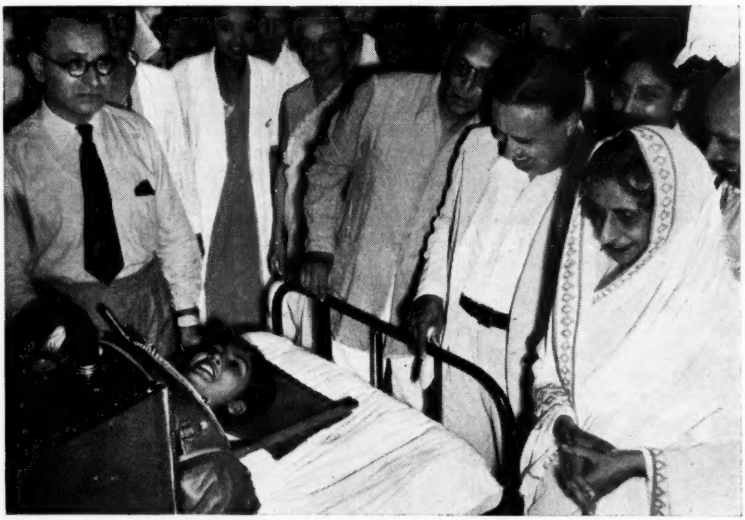
Thanks to data sent in by various countries in reply to a WHO questionnaire, it is now possible to form an approximate idea of the production and consumption of penicillin throughout the world during the years 1949, 1950, and 1951. This information,

[1] *Off. Rec. World Hlth Org.* **21**, 182

although still incomplete, shows that penicillin consumption will increase progressively in all parts of the world. Production, on the other hand, will probably be limited to Europe and America. Consequently, the burden of fulfilling the demand from other parts of the world will fall mainly on these two continents.

As is known, WHO's programme of activities includes, inter alia, encouraging penicillin production. Thus, in Europe, the putting into operation of the penicillin plants handed over by UNRRA was intended as a first step in this direction. WHO

FIG. 4. IRON LUNGS FOR INDIA



Demonstration in New Delhi of one of the iron lungs sent by WHO. Extreme left : Dr C. Mani, Director, WHO Regional Office for South-East Asia ; extreme right : Rajkumari Amrit Kaur, Minister of Health, India

organized a conference in February 1949 [2] for this purpose, and plans were drawn up, in collaboration with the Economic Commission for Europe, with the aim of acquiring material for re-equipping these plants. The governments of Poland, Czechoslovakia, and Yugoslavia have made great efforts to accelerate the implementation of this work, with the result that the production of amorphous penicillin has begun in these countries. In Italy, the UNRRA plant has been modernized so as to be in working order in the autumn ; in addition, Italy has two other factories in production.

It is expected that a certain quantity of penicillin will be produced in China, where an UNRRA plant is to be put into operation.

The WHO programme for 1950 provides for increased assistance in intensifying the production of antibiotics. In addition to the setting-up of an Expert Committee on Antibiotics, this aid comprises the establishment of relations with one or more centres or institutes for the purpose of training specialized personnel in modern production methods for antibiotics and in the research associated therewith.

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[2] *Chron. World Hlth Org.* 1949, 3, 53

Venereal Diseases

Scandinavian countries and Poland

During May and June 1949, Dr J. F. Mahoney, WHO expert consultant on venereal diseases, who, as is well known, was the first to demonstrate the efficacy of penicillin in the treatment of syphilis, paid a series of visits to the Scandinavian countries and to Poland. During his stay, he gave several lectures on the modern treatment of syphilis and was able to inquire into the position in these countries with regard to venereal diseases.

From the report submitted by Dr Mahoney to the Director-General of WHO, it is evident that the measures taken against venereal diseases in the Scandinavian countries have resulted in the incidence rate of these diseases being kept very low. New cases are introduced mainly through maritime channels. As regards anti-venereal-disease control, the author noted a manifest willingness, on the part of these countries, to collaborate, which augurs well for the possible application of international measures. It appears that medical opinion in general remains conservative with respect to treatment ; it is likely that doctors will only gradually accept antibiotic therapy alone for syphilis. Studies on the penicillin therapy of syphilis have already been undertaken in Denmark, Norway, and Sweden.

Leading figures in medical circles in the countries visited by Dr Mahoney appeared to be convinced that it was necessary to introduce some uniformity into the technique, interpretation, and mode of reporting of serological tests, before any effective control could be operated. In this connexion, Dr Mahoney had the opportunity of discussing, with Professor T. Madsen, former Director of the State Serum Institute, Copenhagen, the holding of the WHO international congress on serology in 1951.

The anti-venereal-disease campaign organized by the Polish Government appears to be effective. Polish statistics indicate a sharp decline in the number of new cases of syphilis. In the opinion of Dr Mahoney, however, it is difficult to know how far this is due to the efficacy of the measures taken and how far to the generally observed post-war decline due to social and economic stabilization in the population.

Demonstration team in India

Dr J. C. Cutler, formerly Director of the Venereal Disease Research Laboratory of the Pan American Sanitary Bureau, Guatemala, arrived in India in April 1949 to direct the WHO venereal-disease demonstration team in that country.[3] As a result of interviews with Dr C. Mani, Director of the WHO Regional Office for South-East Asia, and official representatives of the Indian Government, the Himachal Pradesh region (Eastern Punjab) was selected as a health-demonstration area, in view of its high incidence of venereal diseases. This area is becoming rapidly depopulated, owing to its low birth-rate ; the population of 900,000 is poor and predominantly agricultural. Simla, the chief town of the district, has a population of 200,000. Among other facilities, Simla has a hospital with 120 beds, out-patient clinics for mothers and children, and a municipal laboratory which performs about 40 Kahn tests per week ; a high percentage of the tests carried out—chiefly in response to requests from the clinics for mothers and children—are positive. During his visit to the hospital, Dr Cutler saw only cases of tertiary syphilis and neurosyphilis ; no patients were treated there for early syphilis. Twenty additional beds will, however, be available for the hospitalization of patients of the team. Dr Cutler also visited other towns—such as Thiog, Mashobra, and Nahan—where he became aware of the high incidence of the various venereal diseases, including lymphogranuloma venereum and granuloma inguinale.

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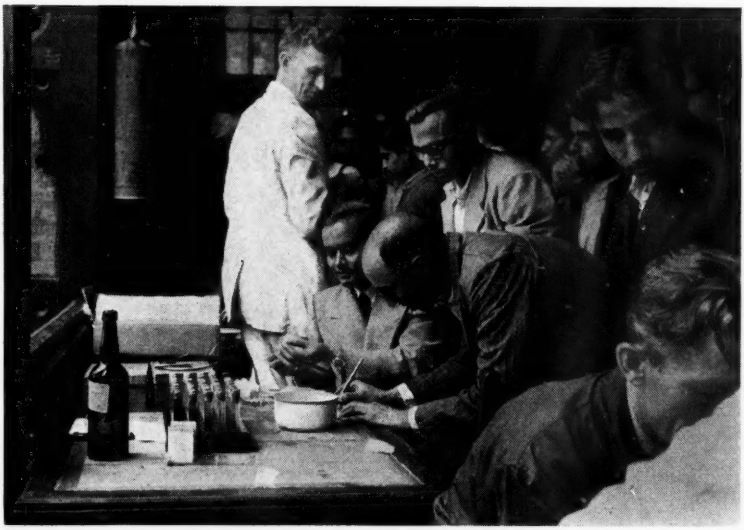
[3] *Chron. World Hlth Org.* 1949, 3, 134

All these problems were discussed by representatives of the WHO regional office with Dr K. C. K. E. Raja, Director-General of Health Services, in April 1949. The Government of India agreed to send trainees from different governmental services and to establish the headquarters of the demonstration team in Simla. Dr R. B. Tampi, a specialist in venereology, was chosen to direct the Indian team and the headquarters venereology service. Measures were also taken for the equipment of the laboratory, and contacts were established with medical and other authorities whose aid might be useful for the work undertaken. In spite of many difficulties, the installation of the

FIG. 5. WHO VENEREAL-DISEASE DEMONSTRATION TEAM IN INDIA — I



Carrying out blood-tests on a group of inhabitants of Simla

laboratory was finished in August, by which time the equipment was also fairly complete. The number of serological tests performed is steadily increasing, and some patients have already been treated.

Field activities are now proceeding on an increasing scale and the first trainees will shortly be assigned to the area by the Indian health administration. When the trainees return to their home areas, it is intended that supplies and equipment shall be made available to their local health units through the United Nations International Children's Emergency Fund (UNICEF), so as to ensure the application, in the various nuclear areas, of the knowledge acquired in the demonstration area.

WHO expert consultant in Ceylon

Asiatic countries are showing a growing interest in modern methods of venereal-disease control. At the request of the Government of Ceylon, Dr G. M. Leiby, Professor of Internal Medicine and Syphilology, University of California, Los Angeles, at present

a WHO expert consultant, recently visited that country in order to discuss with representatives of the health authorities the measures which should be taken there. The Government of Ceylon has asked for the services of a demonstration team similar to that which is at present working in the Himachal Pradesh region in India.[4] Furthermore, the Department of Medical and Sanitary Services of Ceylon has published a booklet dealing with modern ideas in the control of syphilis,[5] written by the four members of the WHO demonstration team now in India, in collaboration with Dr Leiby and Dr H. C. P. Gunewardene, Surgeon-in-Charge, Venereal Disease Control, Ceylon.

FIG. 6. WHO VENEREAL-DISEASE DEMONSTRATION TEAM IN INDIA — II

Taking a blood sample. Centre : Dr J. C. Cutler (team leader) ; right : Dr R. B. Tampi

Dr Leiby availed himself of the opportunity offered to give a series of lectures which were attended by more than 600 physicians, public-health officials, and medical students.

Control programme in the Philippines

In October 1948 a medical mission organized by the Unitarian Service Committee and by WHO arrived in Manila. Later the Philippine Government accepted the proposal of WHO that Dr J. Amador Guevara, the venereologist of the mission, should stay on in the country in the capacity of expert consultant.[6] Dr Guevara has submitted a report to WHO on the programme drawn up by an anti-venereal-disease commission composed of specialists in public health and of venereologists.

The incidence of venereal diseases in the Philippines appears to have increased during the war. Unfortunately, it is generally felt that, since the departure of the troops, the

[4] See page 294

[5] Cutler, J. C., Tampi, R. B., Kvittingen, J., Rose, Evelyn, Leiby, G. M. & Gunewardene, H. C. P. (1949) *Modern concepts of syphilis control*, Colombo

[6] *Chron. World Hlth Org.* 1948, **2**, 263, ; 1949, **3**, 133

problem has ceased to be important. It is obvious that this attitude is unfavourable to an anti-venereal-disease campaign, and venereal diseases are, moreover, considered "shameful diseases", a fact which constitutes a serious obstacle to any organized action.

The first clinics for venereal diseases were established by the American forces ; in December 1948 there were 13 of them, including those in Manila. Among the most serious deficiences at that time were the lack of subsidies, the small number of clinics, some of them badly equipped, insufficient diagnostic facilities, and the inadequacy of epidemiological measures owing to the lack of adequate social services. It is clear that the programme drawn up by the commission will remedy these deficiencies. Dr Guevara's report shows that considerable progress has in fact been made in the different sections of the programme. Take, for instance, the anti-venereal-disease social service, which comprises a physician responsible for investigating sources of infection and for seeing that treatment is continued until a cure is obtained, a physician responsible for giving lectures and for interviewing patients, and social welfare workers, who carry out numerous activities and who have already accomplished much useful work.

The programme also included the formation of a Philippine society of venereologists, which has already held meetings and which has a membership of 137. In February and March 1949, courses in venereology were given to a large number of doctors and, at their request, further courses were given in May. Draft legislation for the control of venereal diseases will be submitted to the Congress of the Philippine Republic after approval by the Secretary of Health. Lectures have been given in several venereal-disease clinics and a manual of venereology will be sent free of charge to the medical profession. The anti-venereal-disease commission also made several recommendations dealing, among other things, with the financing of the campaign, the establishment of new clinics and of social services, the education of the public, etc. It is not too soon to say that the venereal-disease control programme in the Philippines will result in important achievements.

FIG. 7. SIGNATURE OF AN AGREEMENT BETWEEN INDIA AND WHO

Left: Dr C. Mani, Director, WHO Regional Office for South-East Asia ; right: P. M. Menon, Joint Secretary, Ministry of Health, India

Signature of an Agreement between India and WHO

An agreement setting forth the privileges, immunities and facilities granted by the Government of India to the World Health Organization was signed in New Delhi, on 9 November 1949, by Mr P. M. Menon, Joint Secretary, Ministry of Health of India, and Dr C. Mani, Director, WHO Regional Office for South-East Asia.

Sixty-seven States Members of WHO

The Republic of Korea, Guatemala and Peru have ratified the Constitution of WHO, thus bringing the total number of Member States of the Organization to 67. The following countries are now members of WHO (listed according to the dates of ratification) :

China
United Kingdom
Canada
Iran
New Zealand
Syria
Liberia
Switzerland
Hashemite Kingdom of Jordan
Italy
Ethiopia
Netherlands
Albania
Saudi Arabia
Austria
Union of South Africa
Haiti
Norway
Sweden
Iraq
Siam
Finland
Ireland
Yugoslavia
Egypt
Turkey
India
Australia
Portugal
Czechoslovakia
Greece
Union of Soviet Socialist Republics
Ukrainian SSR
Byelorussian SSR
Mexico
Denmark
Afghanistan
Poland
Brazil
Roumania
Bulgaria
France
Hungary
Iceland
Dominican Republic
United States of America
El Salvador
Pakistan
Belgium
Burma
Venezuela
Ceylon
Monaco
Philippines
Chile
Argentine
Paraguay
Lebanon
Ecuador
Costa Rica
Honduras
Uruguay
Luxemburg
Israel
Republic of Korea
Guatemala
Peru

CORRIGENDA

Vol. 3, No. 7

Dr A. Felix has requested that the following corrections should be made to the article on " Biological Standardization " published in Vol. 3, No. 7 of the *Chronicle* (pp. 141-148).

Page 144, line 14 : *delete* 1934
insert 1939
line 21 : *delete* National Institute for Medical Research, London
insert Central Enteric Reference Laboratory and Bureau, Public Health Laboratory Service, Colindale Avenue, London

Dr Felix has also pointed out that some of the terms used in the article, which were the terms employed in the report on the third session of the Expert Committee on Biological Standardization, were not the terms employed in two memoranda submitted by him to that committee. In his memoranda Dr Felix referred to " typhoid and paratyphoid A and B fevers " and not to " *Salmonella* infections ". Similarly, Dr Felix referred to " typhus group of fevers " instead of " rickettsial infections ", and to " *Proteus X* " instead of " *Proteus vulgaris X* ".

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